

Amendments To The Claims

Claims Listing

This claims listing replaces all previous claims listings.

Claim 1 (original). A method of rendering non-viable micro-organisms in a partially completed container, comprising causing a device to extend in said partially completed container, and, while the device is located in the partially completed container, emitting from the device radiation capable of rendering micro-organisms non-viable and simultaneously applying to the interior surface of the partially completed container a substance capable of rendering micro-organisms non-viable.

Claim 2 (original). A method according to claim 1, wherein said causing of said device to extend in said partially completed container comprises displacing said partially completed container over said device.

Claim 3 (currently amended). A method according to claim 1 and further comprising, after said causing of said device to extend in said partially completed container, advancing said device and said partially completed container simultaneously and non-reversingly in a direction transverse to said partially completed container while performing said emitting and said applying.

Claim 4 (original). A method according to claim 1, wherein the distance between said interior surface of the partially completed container and a radiation-emitting part of said device is kept very short while said emitting is being performed.

Claim 5 (original). A method according to claim 1, wherein the partially completed container is a body in the form of a cup or beaker, said method further comprising applying a lid to said body to complete the container.

Claim 6 (currently amended). A method according to claim 1, wherein said partially completed container is in the form of a folded sleeve closed at one end and open at its

other end, said method further comprising folding and sealing said other end to form a top closure, and wherein said causing of said device to extend in said partially completed container comprises producing relative motion between said device and said partially completed container to insert said device into said one end and to advance said device in the interior of said partially completed container while said emitting and said applying are being performed.

Claim 7 (original). A method according to claim 1, wherein said partially completed container is open at opposite ends, and wherein said causing of said device to extend in said partially completed container comprises producing relative motion between said device and said partially completed container to insert said device into one of the open ends, and to advance said device in the interior of said partially completed container while said emitting and said applying are being performed.

Claim 8 (currently amended). A method according to claim 7, wherein said relative ~~movement~~ motion between said device and said partially completed container is at substantially constant speed while said emitting and said applying are being performed.

Claim 9 (currently amended). A method according to claim 7, wherein said causing of said device to extend in said partially completed container comprises causing a mandrel containing said device and supporting said partially completed container to extend in said partially completed container from one of the open ends thereof, said method including, after said emitting, closing the other end of said partially completed container while the latter remains on said mandrel.

Claim 10 (original). A method according to claim 7, and further comprising either applying caps to the respective opposite ends of the partially completed container to close the partially completed container sealingly, or folding and sealing the respective opposite ends to provide end closures.

Claim 11 (original). A method according to claim 1, wherein said radiation is emitted substantially perpendicularly to a common longitudinal axis of said partially completed container and of said device and substantially throughout 360° around this axis.

Claim 12 (original). A method according to claim 11, wherein said substance is emitted from an outer end of said device substantially perpendicularly to said axis and substantially throughout 360 degrees around this axis.

Claim 13 (original). Apparatus for use in rendering non-viable microorganisms in a partially completed container, comprising a device serving both to emit radiation capable of rendering micro-organisms non-viable and to emit a dispersion of a substance capable of rendering micro-organisms non-viable, and a drive arrangement serving to cause said device to extend in said partially completed container.

Claim 14 (original). Apparatus according to claim 13, wherein said drive arrangement serves to displace said partially completed container over said device.

Claim 15 (currently amended). Apparatus according to claim 13, and further comprising a mandrel containing said device, said drive arrangement serving to cause said mandrel to extend in said partially completed container from one of opposite open ends of said partially completed container, and a closing arrangement disposed at a location along a path of transverse movement of said mandrel and arranged to close the other end of said partially completed container, said device being arranged to apply at least one of said radiation and said substance to said partially completed container before said closing arrangement commences closing said other end of said partially completed container.

Claim 16 (original). Apparatus according to claim 13, and further comprising a second drive arrangement serving to advance said device and said partially completed container simultaneously in a direction transverse to said partially completed container while said device emits said radiation.

Claim 17 (original). Apparatus according to claim 13, wherein said device comprises a rod-shaped source of said radiation serving to emit radiation substantially perpendicularly to a longitudinal axis of said rod-shaped source and substantially throughout 360° around this axis.

Claim 18 (original). Apparatus according to claim 17, wherein said device comprises a disperser at an outer end of said rod-shaped source and capable of emitting said substance substantially perpendicularly to said longitudinal axis and through substantially 360° around this axis.

Claim 19 (previously presented). Apparatus according to claim 17 and further comprising a mandrel cap at an outer end of said rod-shaped source and enabling the partially completed container to be bottom-sealed.

Claim 20 (currently amended). A method of rendering non-viable micro-organisms in a partially completed container open at opposite ends, comprising producing relative motion between a device and said partially completed container to insert said device into one of the open ends, and to advance said device in the interior of said partially completed container while producing from said device a dispersion of a substance capable of rendering micro-organisms non-viable and thereby applying said substance to the interior surface of the partially completed container, all while said partially completed container remains open at said opposite ends.

Claim 21 (previously presented). A method according to claim 20, wherein said relative motion between said device and said partially completed container is at substantially constant speed while said applying is being performed.

Claim 22 (original). A method according to claim 20, wherein said producing of said relative movement comprises causing a mandrel containing said device to extend in said partially completed container from one of the open ends thereof, said method including,

after said advance of said device, closing the other end of said partially completed container while the latter remains on said mandrel.

Claim 23 (original). A method of rendering non-viable micro-organisms in a partially completed container, comprising displacing said partially completed container over a device, and, while the device is located in the partially completed container, emitting from the device radiation capable of rendering micro-organisms non-viable.

Claim 24 (original). Apparatus for use in rendering non-viable microorganisms in a partially completed container, comprising a device serving to emit radiation capable of rendering microorganisms non-viable, and a drive arrangement serving to displace said partially completed container over said device.

Claim 25 (original). A method of rendering non-viable micro-organisms in a partially completed container open at opposite ends, comprising causing a mandrel to extend in said partially completed container from one of the open ends thereof, emitting from a device in said mandrel a medium capable of rendering micro-organisms in said partially completed container non-viable, and subsequently closing the other end of said partially completed container while the latter remains on said mandrel.

Claim 26 (previously presented). Apparatus for use in rendering non-viable microorganisms in a partially completed container open at opposite ends, comprising a mandrel, a device in said mandrel serving to emit a medium capable of rendering microorganisms in said partially completed container non-viable, a drive arrangement for causing said mandrel to extend in said partially completed container from one of the open ends, a closing arrangement disposed at a location along a path of transverse movement of said mandrel and serving to close the other end of said partially completed container, said device being arranged to apply said medium to said partially completed container before said closing arrangement commences closing said other end of said partially completed container.

Claim 27 (original). A method of rendering non-viable micro-organisms in a partially completed container open at opposite ends, comprising causing a mandrel to extend in said partially completed container from one of the open ends, whereafter the other end of the partially completed container can be closed, and emitting from a device in said mandrel radiation capable of rendering micro-organisms in said partially completed container non-viable.

Claim 28 (original). Apparatus for use in rendering non-viable microorganisms in a partially completed container open at opposite ends, comprising a mandrel, a device in said mandrel serving to emit radiation capable of rendering micro-organisms in said partially completed container non-viable, a drive arrangement for causing said mandrel to extend in said partially completed container from one of the open ends, and a closing arrangement serving to close the other end of said partially completed container.

Claim 29 (original). A method of rendering non-viable micro-organisms in a partially completed container, comprising causing a device to extend in said partially completed container from an open end of said partially completed container, and advancing said device and said partially completed container simultaneously in a direction transverse to an axis of said partially completed container while emitting from said device a medium capable of rendering micro-organisms in said partially completed container non-viable.

Claim 30 (previously presented). Apparatus for use in rendering non-viable microorganisms in a partially completed container, comprising a device serving to emit a medium capable of rendering microorganisms non-viable, a first drive arrangement serving to cause said device to extend in said partially completed container from an open end of said partially completed container, and a second drive arrangement serving to advance said device and said partially completed container simultaneously in a direction transverse to an axis of said partially completed container while said device emits said medium.

Claim 31 (previously presented). A method according to claim 20 and further comprising, after said producing of said relative motion, advancing said device and said partially completed container simultaneously in a direction transverse to said partially completed container while performing said applying.

Claim 32 (previously presented). A method according to claim 20, wherein said substance is emitted from an outer end of said device substantially perpendicularly to a common longitudinal axis of said partially completed container and of said device and substantially throughout 360° around this axis.

Claim 33 (previously presented). A method according to claim 23, wherein the distance between said interior surface of the partially completed container and a radiation-emitting part of said device is kept very short while said emitting is being performed.

Claim 34 (previously presented). A method according to claim 23, wherein said partially completed container is open at opposite ends, and wherein, while said displacing is being performed, said emitting is being performed.

Claim 35 (previously presented). A method according to claim 34, wherein said displacing is at substantially constant speed while said emitting is being performed.

Claim 36 (currently amended). A method according to claim 34, wherein said displacing comprises causing a mandrel ~~containing~~ containing said device to extend in said partially completed container from one of the open ends thereof, said method including, after said emitting, closing the other end of said partially completed container while the latter remains on said mandrel.

Claim 37 (previously presented). Apparatus according to claim 24, and further comprising a mandrel containing said device, said drive arrangement serving to displace said partially completed container over said mandrel from one of opposite open ends of said partially completed container, and a closing arrangement disposed at a location along

a path of transverse movement of said mandrel and arranged to close the other end of said partially completed container, said device being arranged to apply said radiation to said partially completed container before said closing arrangement commences closing said other end of said partially completed container.

Claim 38 (previously presented). Apparatus according to claim 24, and further comprising a second drive arrangement serving to advance said device and said partially completed container simultaneously in a direction transverse to said partially completed container while said device emits said radiation.

Claim 39 (previously presented). Apparatus according to claim 24, wherein said device comprises a rod-shaped source of said radiation serving to emit radiation substantially perpendicularly to a longitudinal axis of said rod-shaped source and substantially throughout 360° around this axis.

Claim 40 (previously presented). Apparatus according to claim 39 and further comprising a mandrel cap at an outer end of said rod-shaped source and enabling the partially completed container to be bottom-sealed.

Claim 41 (previously presented). A method according to claim 25, wherein said causing of said mandrel to extend in said partially completed container comprises displacing said partially completed container over said mandrel.

Claim 42 (previously presented). A method according to claim 25 and further comprising, after said causing of said device to extend in said partially completed container, advancing said device and said partially completed container simultaneously in a direction transverse to said partially completed container while performing said emitting.

Claim 43 (previously presented). A method according to claim 25, wherein said partially completed container is open at opposite ends, and wherein said causing of said device to extend in said partially completed container comprises producing relative motion

between said device and said partially completed container to insert said device into one of the open ends, and to advance said device in the interior of said partially completed container while said emitting is being performed.

Claim 44 (previously presented). A method according to claim 43, wherein said relative movement between said device and said partially completed container is at substantially constant speed while said emitting is being performed.

Claim 45 (previously presented). A method according to claim 25, wherein said medium is emitted substantially perpendicularly to a common longitudinal axis of said partially completed container and of said device substantially throughout 360° around this axis.

Claim 46 (previously presented). Apparatus according to claim 26, wherein said drive arrangement serves to displace said partially completed container over said device.

Claim 47 (previously presented). Apparatus according to claim 26, and further comprising a second drive arrangement serving to advance said device and said partially completed container simultaneously in a direction transverse to said partially completed container while said device emits said medium.